

REMARKS

Claims 1-54 are pending and have been examined. Claims 1, 33-40, 46, and 53 have been amended. Claim 55 has been added. Claims 45 and 52 have been canceled without acquiescence to the Examiner's action, without abandonment of the invention of Claims 45 and 52, and without prejudice to file an application for patent directed to the subject matter of Claims 45 and 52. Reconsideration of Claims 1-44, 46-51, 53, and 54 and allowance of Claims 1-44, 46-51, and 53-55 is respectfully requested.

Entry of this amendment is respectfully requested. Applicants believe that the amendments to Claims 1, 33-40, 46, and 53 place the application in condition for allowance. The amendments to Claims 1, 33-40, 46, and 53 do not change their scope; do not raise new issues that would require the Examiner's further consideration or search; and do not raise the issue of new matter. For the purpose of appeal, entry of this amendment is respectfully requested.

Examiner Telephone Interview

The helpful discussions with the Examiner on November 6 and 22, 2002 are noted with appreciation.

Drawings

The drawings filed on July 16, 2002 have been disapproved. Applicants believe that the Examiner has disapproved of FIGURES 12A, 12B, 13, 15, and 16 for failing to show changes as highlighted. Applicants submit herewith proposed drawing corrections for these figures with changes highlighted. Applicants believe that the Examiner has disapproved of FIGURES 32 and 33. Applicants enclose herewith substitute formal drawings, FIGURE 1-31, deleting FIGURES 32 and 33, and believe that the Examiner's objections to the drawings have been

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overcome. If any issues remain regarding the drawings, the Examiner is respectfully requested to contact applicants' attorney.

Specification

The amendment filed July 16, 2002 has been objected to as introducing new matter into the specification. As noted above, applicants have deleted FIGURES 32 and 33 and have amended the specification accordingly. In view of the amendment, applicants believe that the objections to the specification have been overcome. If any issues remain regarding the specification, the Examiner is respectfully requested to contact applicants' attorney.

The Rejection of Claims 1-22 and 27-54 Under 35 U.S.C. § 102(e)

Claims 1-22 and 27-54 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,429,351, issued to Guidotti et al. Applicants traverse the rejection for the following reasons.

Fibrous Liquid Distribution Zones. The present invention relates to an absorbent composite that includes a fibrous matrix having bands of absorbent material therein. Between the composite's bands of absorbent material are liquid distribution zones. To clarify the features of the claimed invention, the independent claims have been amended to recite that the liquid distribution zones within the fibrous matrix are fibrous liquid distribution zones.

The Guidotti reference describes an "absorbent body [that] includes a liquid-reception or liquid acquisition space consisting of at least one cavity or at least one region of lower density than an acquisition layer of the absorbent body that adjoins said space". See column 1, lines 10-13. The claimed composite's fibrous liquid distribution zones are in contrast to the "coherent cavities" and the "regions of lower density" of the absorbent body described in the Guidotti reference.

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The Guidotti reference describes an absorbent body for use in an absorbent product, such as a diaper. The absorbent body includes transport layer (18), acquisition layer (19), storage layer (23), and liquid dispersion layer (25). The acquisition layer is positioned intermediate the transport and storage layers and consists of a plurality of cylindrical bodies (20) that are disposed in a mutual spaced relationship and leave therebetween a coherent cavity (24). See column 8, lines 52-64. Alternatively, the liquid acquisition cavity can be comprised of a space of lower density than the peripheral material, for example, fibre wadding. See column 8, line 65 through column 9, line 2. The American Heritage Dictionary defines "wadding" as "a soft layer of fibrous cotton or wool used for padding".

The fibrous liquid distribution regions of the claimed invention are clearly distinguishable from the reference's teaching of "coherent cavities". The fibrous liquid distribution regions of the claimed invention are also clearly distinguishable from the reference's fiber wadding "region of lower density".

Bonded Cellulosic Fibers. The claimed invention's fibrous matrix comprises bonded cellulosic fibers. In one embodiment the absorbent composite is wetlaid (see independent Claims 33, 36), and in another embodiment the absorbent composite is foam-formed (see independent Claims 34, 37). By virtue of these "wet" forming methods, the composite's fibrous matrix includes bonded cellulosic fibers. As defined in the specification, the term "bonded" refers to hydrogen bonding that occurs between fibers when fibers have been wetted and then formed into a mat or web. See page 7, lines, 14-27.

The acquisition layer described by the Guidotti reference is an airlaid web. See the Example. Also, at column 4, lines 53-66, the reference states that a particularly suitable material for use in forming the acquisition layer is one comprised of cellulosic fibers, conveniently, flash-dried fibers that have been dry-formed into a web.

In contrast to the airlaid web described in the reference, the claimed composite is formed by either a wetlaid or foam-forming method. As noted in the application, the distinction between airlaid webs and either wetlaid or foam-formed webs is that in wetlaid or foam-formed webs the fibers are bonded. Because the acquisition layer described by the reference is airlaid, the core's cellulosic fibers are not bonded. Accordingly, the acquisition layer described by the Guidotti reference does not include bonded cellulosic fibers, as in the claimed invention.

The Examiner has pointed to the reference at column 5, lines 6-17, for the teaching that the reference's acquisition layer includes "bonded" cellulosic fibers. At column 5, lines 8-13, the reference describes an acquisition layer "formed of a material layer having a first thickness and including resilient material, said layer being compressed . . . and bound in its compressed state with a binder that is soluble in body fluids, wherein the binding of the material ceases when the layer is wetted such that the layer will return at least partially to the first thickness".

It is clear that the layer described by the Guidotti reference does not include "bonded" cellulosic fibers, as in the claimed invention. Rather, the layer described in the Guidotti reference can include a "binder" that is effective in maintaining a compressed layer in compressed form until wetted at which time the binder ceases to function as a binder and releases the compressed layer. The bonded fibers of the fibrous matrix of the claimed invention provide dry and wet strength to the composite. The "binder" described in the Guidotti reference does not.

Independent Claims 1, 33-40, 46, and 53 have been amended to clarify that the composite's liquid distribution zones are fibrous. Because the Guidotti reference fails to describe the claimed invention, the reference is not anticipatory and withdrawal of this grounds for rejection is respectfully requested. Furthermore, because the cited reference fails to teach, suggest, provide any motivation to make, or otherwise render obvious the claimed invention,

applicants submit that the claimed invention is nonobvious and patentable over the cited reference.

The Rejection of Claims 23-26 Under 35 U.S.C. § 103

Claims 23-26 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,429,351, issued to Guidotti et al., in view of U.S. Patent No. 6,294,710, issued to Schmidt et al. Applicants traverse the rejection for the following reasons.

Claim 23 depends from Claim 1 and Claims 24-26 depend from Claim 23. As noted above, Claim 1 has been amended to clarify that the composite's liquid distribution zones are fibrous. The Guidotti reference fails to teach or suggest the claimed invention. The deficiencies of the Guidotti reference are not cured by the teaching of the Schmidt reference. Because the cited references, either alone or in combination, fail to teach, suggest, provide any motivation to make, or otherwise render obvious the claimed invention, applicants submit that the claimed invention is nonobvious and patentable over the cited references. Withdrawal of this grounds for rejection is respectfully requested.

New Claim 55

Claim 55 has been added. Claim 55 finds support throughout the application as originally filed.

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Conclusion

In view of the above amendments and foregoing remarks, applicants believe that Claims 1-44, 46-51, and 53-55 are in condition for allowance. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicants' attorney at 206.695.1755.

Respectfully submitted,

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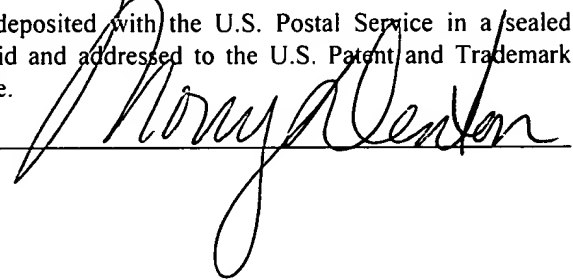
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VERSION WITH MARKINGS TO SHOW CHANGES MADE NOVEMBER 26, 2002

In the Specification:

The paragraph beginning on page 38, line 33, has been amended to read as follows:

Constructs 90, 92, 94, 96, 100, 102, 104, and 106 can be incorporated into absorbent articles. Generally, absorbent articles 110, 112, 114, 116, 120, 122, 124, and 126, shown in FIGURES 25A through 25H, respectively, include a liquid pervious facing sheet 52 and a liquid impervious backing sheet 54 and constructs 90, 92, 94, 96, 100, 102, 104, and 106, respectively. In such absorbent articles, the facing sheet is joined to the backing sheet. [The absorbent articles can further include leg gathers (53).]

In the Claims:

Claims 1, 33-40, 46, and 53 have been amended as follows

1. (Twice Amended) An absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

33. (Twice Amended) A wetlaid absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

34. (Twice Amended) A foam-formed absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

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35. (Twice Amended) An absorbent article comprising an absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

36. (Twice Amended) An absorbent article comprising a wetlaid absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

37. (Twice Amended) An absorbent article comprising a foam-formed absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

38. (Twice Amended) An absorbent article comprising:

a liquid pervious facing sheet;

a storage layer comprising an absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers; and

a liquid impervious backing sheet.

39. (Twice Amended) An absorbent article comprising:

a liquid pervious facing sheet;

an acquisition layer for rapidly acquiring and distributing liquid;

a storage layer comprising an absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers; and

a liquid impervious backing sheet.

40. (Twice Amended) An absorbent article comprising:

a liquid pervious facing sheet;

an acquisition layer for rapidly acquiring and distributing liquid;

a storage layer comprising an absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers;

an intermediate layer interposed between the acquisition layer and the storage layer; and

a liquid impervious backing sheet.

46. (Twice Amended) An absorbent article comprising:

a liquid pervious facing sheet;

an acquisition layer for acquiring and distributing liquid;

a storage layer; and

a liquid impervious backing sheet;

wherein the acquisition layer comprises an absorbent composite comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

53. (Amended) An absorbent composite, comprising a fibrous matrix and absorbent material, wherein the absorbent material is present in the fibrous matrix in two or more bands, wherein the bands swell and form a fluted structure upon contact with liquid, wherein the regions between the bands comprise fibrous liquid distribution zones [in the fibrous matrix], and wherein the fibrous matrix comprises bonded cellulosic fibers.

Claims 45 and 52 have been canceled.

Claim 55 has been added.

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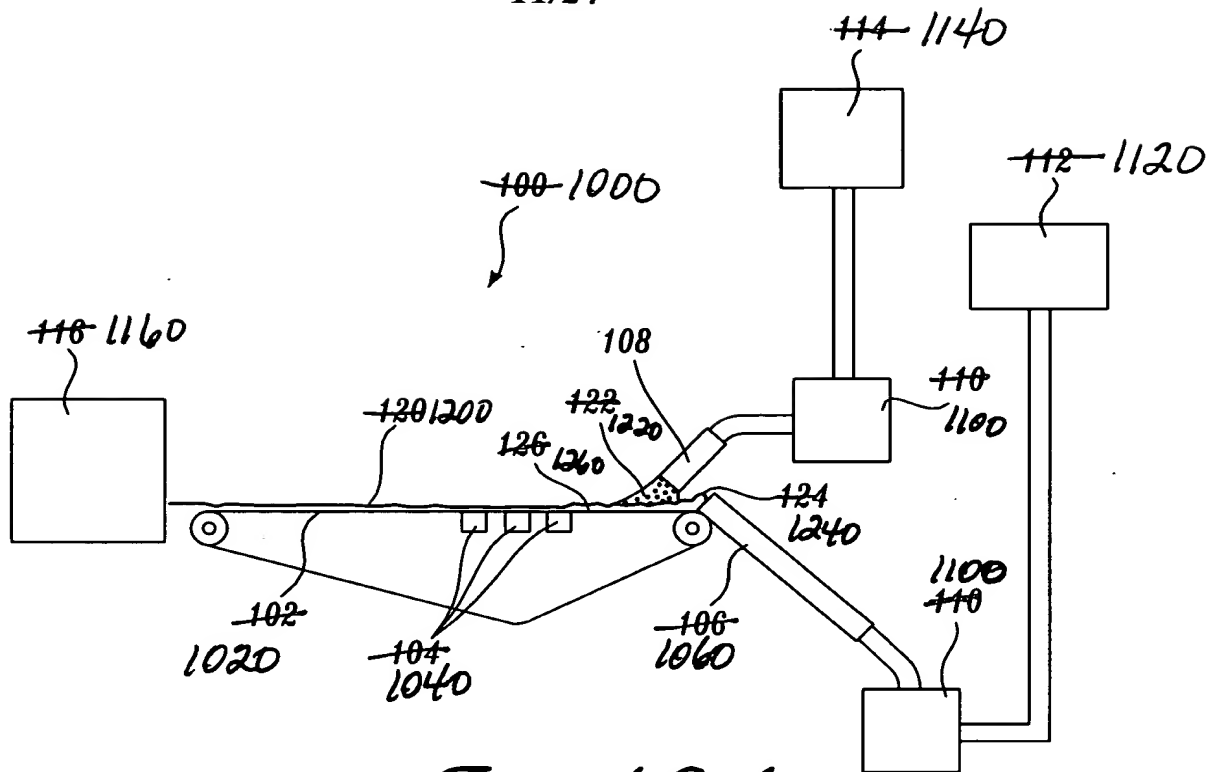


Fig. 12A

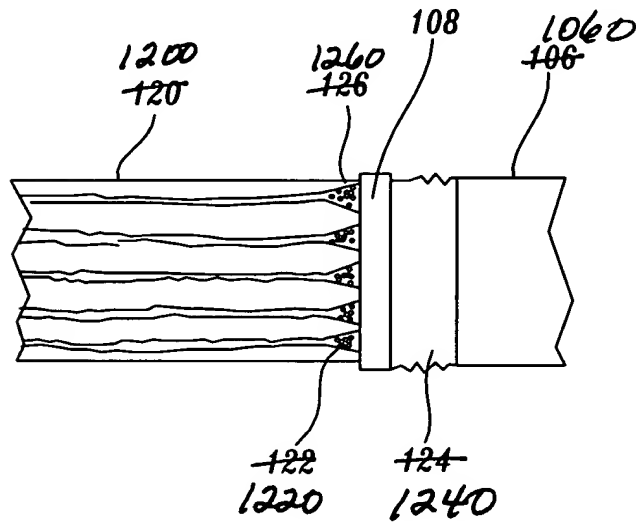


Fig. 12B

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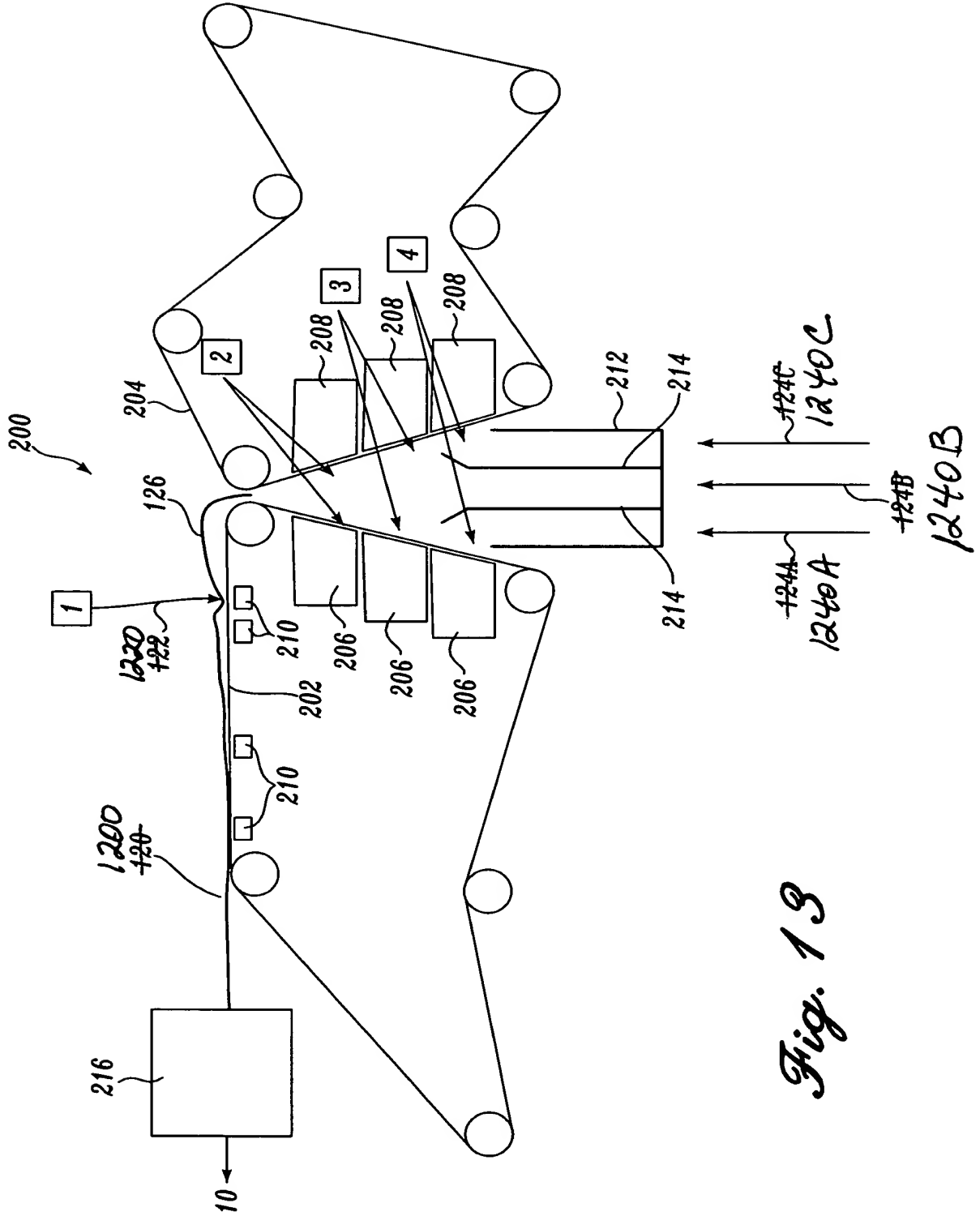
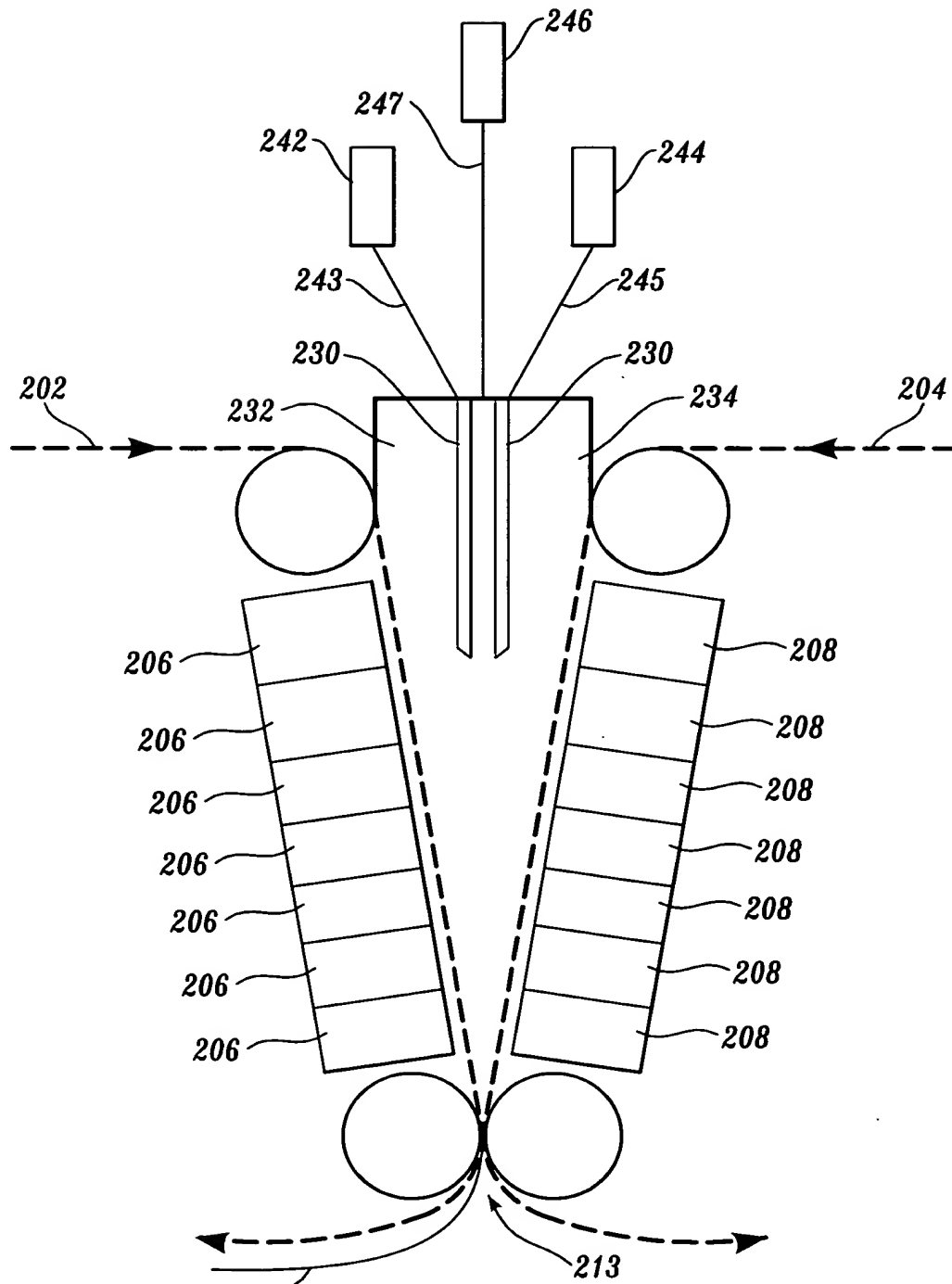
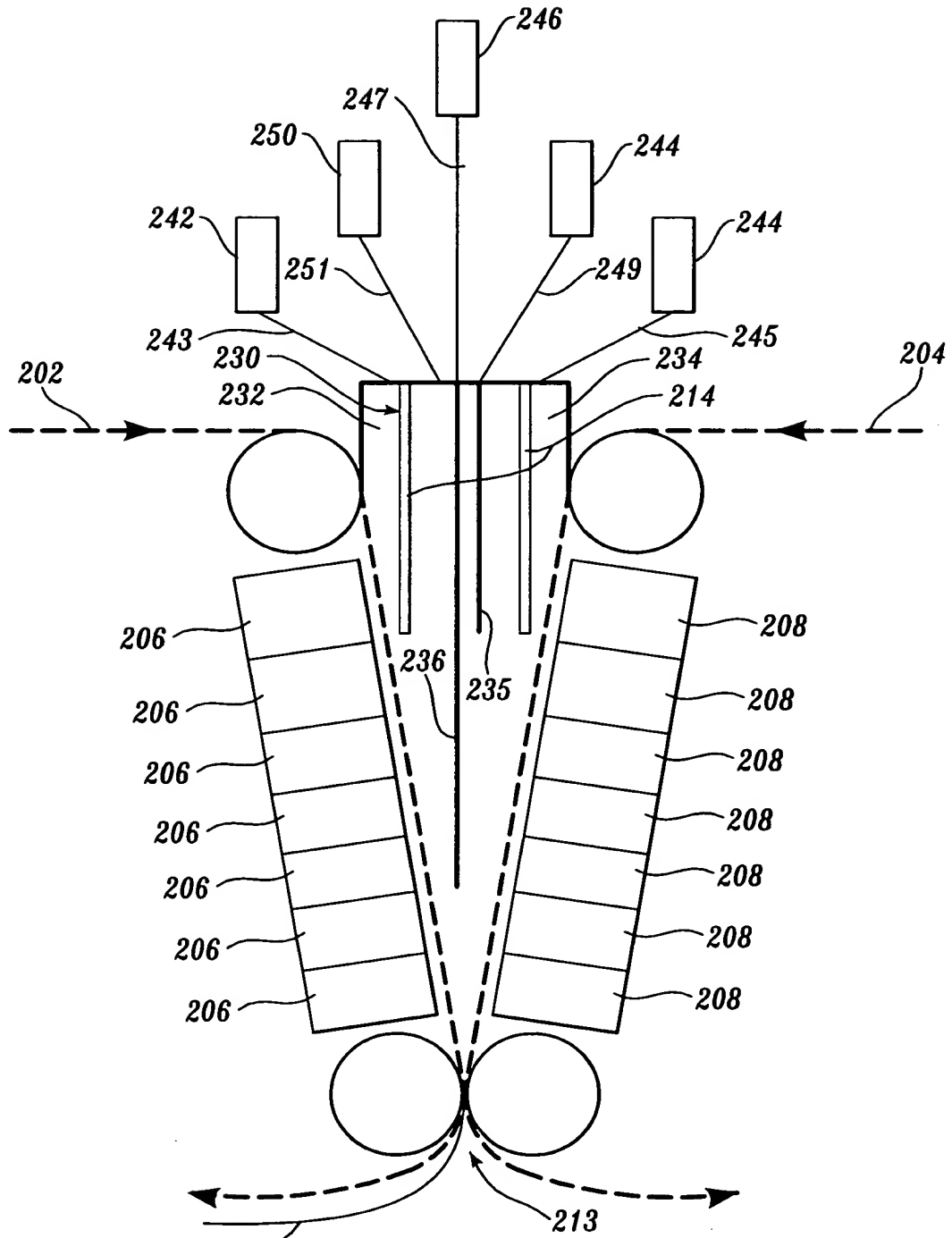


Fig. 13



~~126~~
 1260 *Fig. 15.*



~~126~~
 1260 *Fig. 16.*